

What is claimed is:

1        1. A radio receiver comprising

2              first and second antennas connected to RF processing circuitry by an RF switch;

5              an RF switch control switched incrementally in response to a sequence of scheduled  
6        packet bursts.

1        2. The radio receiver of claim 1, wherein:

2              the RF switch control schedules sequence bursts prescribed by a QoS defined by a MAC  
3        protocol.

1        3. The radio receiver of claim 2, wherein:

2              a MAC processor is synchronized with transmission of a base station.

1        4. The radio receiver of claim 1, wherein:

2              the antennas are switched so that each antenna receives a related packet burst.

1        5. A method of maintaining a controlled QoS in a wireless communication system,  
2        comprising steps of:

3              receiving communications from a transceiver at a transmission station by wireless  
4        transceivers at receiving stations having switched protocol diversity reception operational modes;

5              communications being formatted as multiple packet bursts;

6              enabling a first antenna to receive a first packet burst;

7       enabling a second antenna to receive a second packet burst;  
8  
9       recording the received bursts as soft information in a storage medium;  
10  
11      combining the soft information from the first and second bursts into a single message.

1       6. The method of claim 5 wherein:

2       each packet burst contains a same complete message.

3       7. The method of claim 5 wherein:

4       each packet burst contains a portion of a space-time coded message spread across the first  
5       and second packet bursts.

6       8. A method of achieving a QoS control in a wireless LAN communication system,  
7       comprising steps of:

8       transmitting a message contained within a plurality of packet bursts occurring at spaced  
9       time intervals;

10      receiving the packet burst individually at a plurality of antennas.

1       9. The method of claim 8 wherein:

2  
3       each of the plurality of the antennas is connected to a radio receiver at separate times  
4       relative to other receiving antennas.

5       10. The method of claim 8, wherein:

2 including a complete message within each packet burst.

1 11. The method of claim 8 wherein:

2 a message is spread across the plurality of packet bursts by space-time coding.

1 12. The method of claim 8 wherein:

2 the process of signal transmitting combines a protocol with signal processing.

1 13. A communication system for coupling a transmitter and a receiver adapted for  
2 receiving at least first and second signal bursts by first and second antennas respectively, and  
3 responding to the two signal bursts to communicate a single unified message at the receiver;  
4 whereby:

5 the first and second signal bursts are sequentially separated in time;

6 the first and second antennas are sequentially enabled to communicate to storage at the  
7 receiver;

8 enabling a representation of the unified message by responding to the first and second  
9 signals.

1 14. The communication system of claim 13, wherein:

2 the first and second signal bursts are identical packets of a common message.

1 15. The communication system of claim 13, wherein:

2           the first and second signal bursts are each a part of a space-time coded message spread  
3   across two bursts; and

4           a common message is derived from the sequential signal bursts received by the first and  
5   second antennas.

1       16. The communication system of claim 13, wherein:

2           enabling includes retaining the first and second signal bursts in a storage medium and  
3   processing to deliver the single unified message.

1       17. The communication system of claim 13, wherein:

2           deriving the common message includes selecting a message from one of the receiving  
3   antennas.

1       18. The communication system of claim 13, wherein:

2           deriving the common message includes decoding a space-time coded signal spread across  
3   and received by both the first and second antennas.

1       19. The method of claim 8, including a further step of:

2           notifying a transmitter at a transmitting end by a receiving end of the number of antennas  
3   and radio receivers at the receiving end.

1       20. The method of claim 8, including a further step of:

2           a receiver notifying a transmitter that it accepts and responds to protocol-assisted  
3   diversity operations.

21. The method of claim 8, including a further step of:

2           upon reconstruction of a received message sending a message to the transmitting end to  
3   cease further message bursts.